HNTB ARCHITECTS ENGINEERS PLANNERS

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April 16, 1998

Mr. David L. Becka, C.P.G., Section Chief
Solid Waste Geology Section
Solid and Hazardous Waste Management
Indiana Department of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Re: Corrective Action Program
Speedway Landfill
Marion County
HNTB Job No. 26040-PL-004-001, File 1A

Dear Mr. Becka:

This letter is in response to your March 16, 1998 correspondence requiring the submission of a corrective action plan (CAP) to address statistically significant increases (SSI) in iron and ammonia and your follow-up correspondence of April 2, 1998 which added barium. The CAP will be completed in several different tasks designed to provide: plume delineation; recovery well location and recovery rate; and to assist with obtaining landfill closure.

CORRECTION ACTION PROGRAM

Task 1, Plume Delineation

As indicated on sample analysis reports previously submitted by Speedway, groundwater samples are regularly collected from one up gradient well, MW-1R, and three down-gradient wells (MW-2R, MW-102 and MW-100). Of the down-gradient wells, only MW-100 has had sample analysis results with SSI as discussed in the IDEM's March 16 and April 2 correspondence.

In addition to the down-gradient wells currently included in the regular sample rounds, three additional wells are located on the site. Two of these wells, MW-101 and MW-3, are positioned near the property boundary equally spaced on either side of MW-100. All of the monitoring wells and the property lines are shown in Figure 1.

Geology Copy

The first item to be completed as part of this task will be the evaluation of MW-101 and MW-3 to determine the feasibility of utilizing these wells as additional sample points to define the extent of the plume along the site's southern property line. If these wells appear to be located in the same strata as MW-100, and are physically sound, samples will be collected and analyzed following the same procedures as the current semi-annual sampling rounds being conducted by Speedway. The laboratory analysis will be completed for all sixty four constituents included in: 329 IAC2-16-6, phase I; 329 IAC 2-16-7, phase II and secondary standards; and 329 IAC 2-16-10, groundwater quality standard.

If the review of MW-3 and MW-101 indicates one or both of the wells are not usable for this purpose, then groundwater samples will be collected using the hydro-punch method from the six locations shown in Figure 2. These samples will also be analyzed for the sixty-four constituents previously discussed in this section.

Upon completion of the sample analysis, a figure will be prepared for submittal to IDEM/OSHWM showing the sample locations and results and the estimated areal extent of the plume.

Task 2, Recovery Well Design

The areal extent of the plume as estimated in Task 1 and the Hydrologic Study of the Town of Speedway's Landfill completed by ATEC in June, 1989 will be used to design and locate the recovery well(s) to obtain effective interception of the plume and provide adequate drawdown to influence the entire plume cross-section. The design will include a pipe to transmit the flow to the Town's Wastewater Treatment Plant (WWTP), located immediately north of the site, for biological treatment.

Task 3, Recovery Well Installation and Testing

Task 3 includes the installation and testing of the recovery well designed in Task 2. Upon completion of the well installation, the static water level will be measured and recorded. The well will then be developed by bailing and pumping until the discharge is free of sands and silts. During the pumping phase of the well development, the well performance will be estimated by measuring the discharge rate and pumping levels. The well will then be allowed to recover to within 0.1 foot of original static water level before the start of the pumping test.

The pumping test will include a four hour step drawdown test followed immediately by a four hour constant rate test conducted at the highest rate attained during the step test. Water levels during all test pumping will be collected from the pumped well and a minimum of two other wells to obtain an accurate estimate of the radius of influence. The step drawdown test will be

Thank you for the time taken to review this correspondence. If you have any questions or comments, feel free to contact us.

Very truly yours,

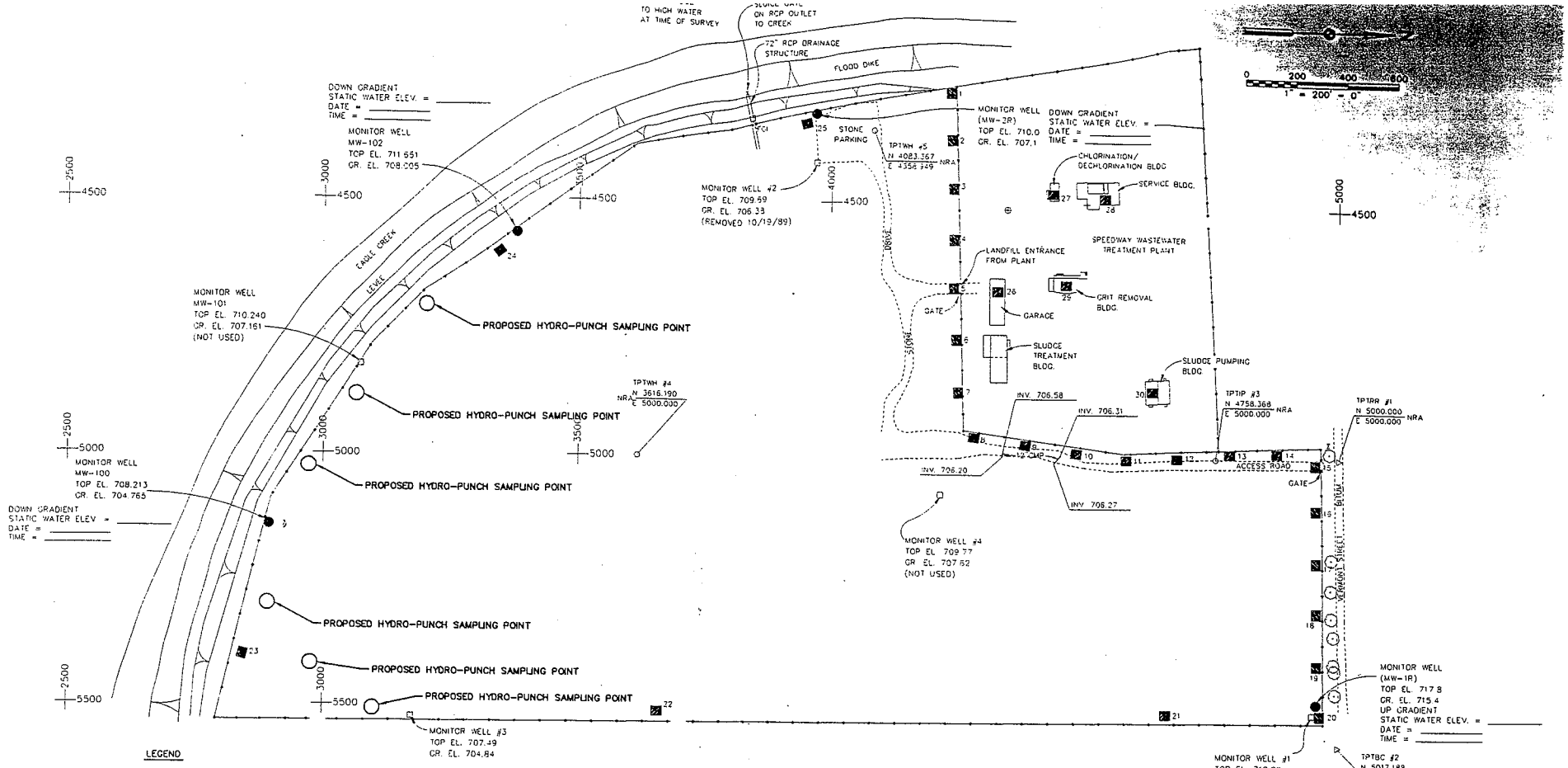
HNTB CORPORATION

Harold E Dungan, P.E.
Project Manager

HED/dmk

Enclosures

cc: Speedway Town Council
Mr. Jack Sneyd, Town of Speedway
Mr. Norm Berry, Town of Speedway
Mr. Henry Ryder, Attorney
Mr. Clint Wilson, HNTB



LEGEND

- CHAINLINK FENCE
- 708 FINAL CONTOURS
- DECIDUOUS TREE
- BENCH MARK
- GROUND WATER MONITOR WELL
- METHANE MONITORING LOCATION

NOTES:

THE RELATIVE ELEVATIONS, AS DEPICTED, ARE BASED UPON THE ASSUMPTION THAT THE ELEVATION OF BM. #1 IS 710.75 THE ELEVATIONS AND DRAINAGE PATTERN SHOWN HEREON MAY CHANGE SUBSEQUENT TO THE DATE HERE OF DUE TO SUBSIDENCE OR UPHEAVAL OF SOIL, ADDITION OR REMOVAL OF SOIL BY ACTS OF MAN, EROSION BY WIND OR WATER, OR OTHER FACTORS. THEREFORE, THIS SURVEY MAY NOT ACCURATELY DEPICT THE ELEVATIONS AND DRAINAGE PATTERN OF THE ABOVE SITE AFTER THE DATE OF THE SURVEY. THE PURPOSE OF THIS SURVEY IS TO PROVIDE TOPOGRAPHIC INFORMATION OF THE EXISTING LANDFILL SITE.

VERIFY SCALES	SYMBOL	REVISIONS	BY	DATE	APPROVED
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.					

DESIGNER	
DRAFTING	
PROJ. ENGR.	
PROJ. MGR.	
BY	
DATE	

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JOB NO.

DATE

TOWN OF SPEEDWAY, INDIANA
SANITARY LANDFILL
CORRECTIVE ACTION PROGRAM

FIGURE 2

SHEET NO.

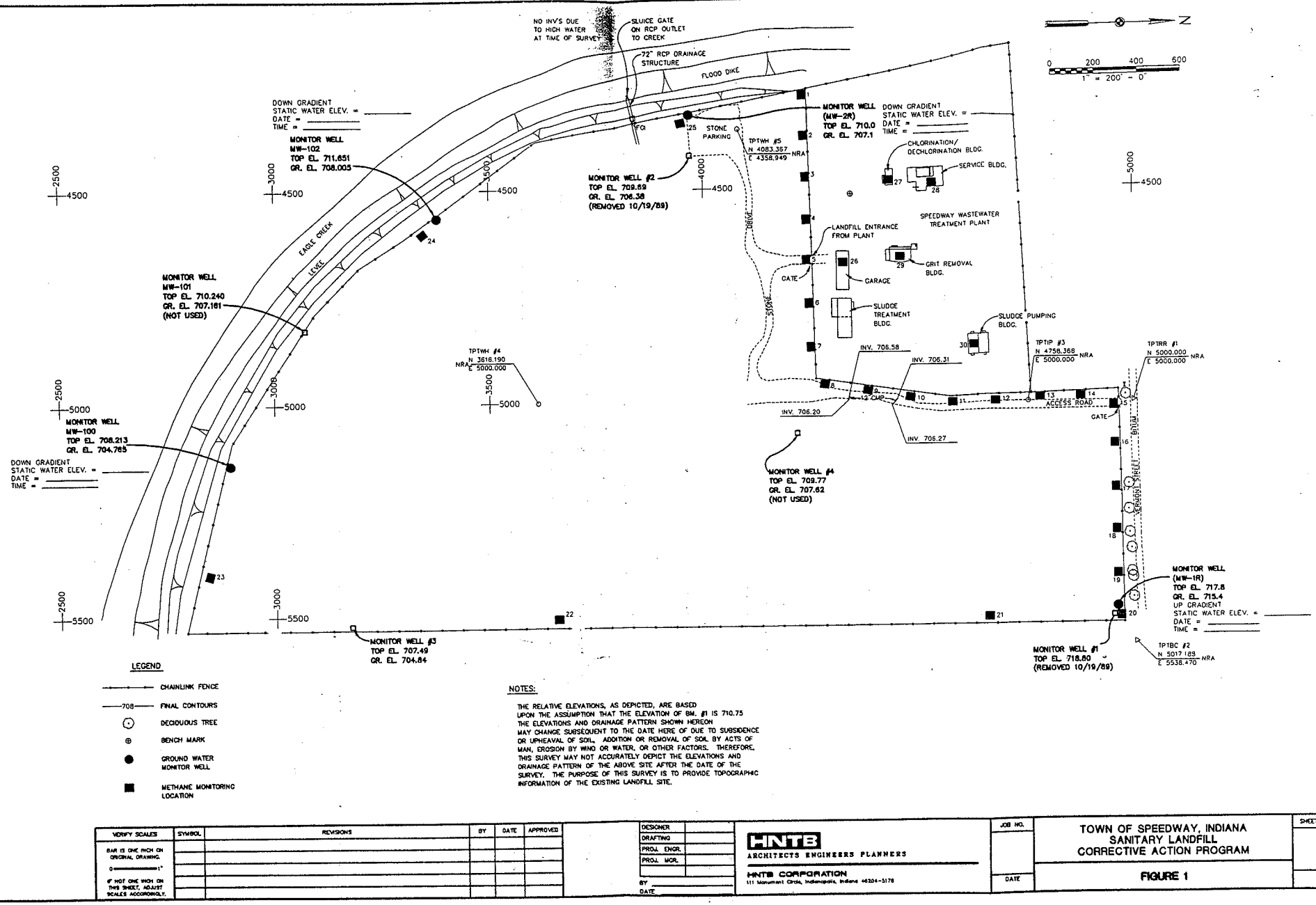

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FIGURE 1

SHEET